

AMENDMENTS TO THE ABSTRACT

Please replace the original abstract with the replacement abstract provided on a separate sheet of paper.

A method for analyzing an electromagnetic field includes: a step ~~S1~~ for setting up initial shapes of conductor patterns in each layer of a multilayer circuit board; a step ~~S2~~ for setting up initial ports for input or output of an external signal in each conductor pattern; a step ~~S3~~ for dividing two-dimensionally the multilayer circuit board into a plurality of areas; and steps ~~S4a~~ and ~~S4b~~ for setting up additive ports on edges of the conductor pattern which has been created by area-division. Additionally, the method includes area-division; steps ~~S5a~~ and ~~S5b~~ for setting up individual analysis conditions for the initial ports and the additive ports, respectively; steps ~~S6a~~ and ~~S6b~~ for performing an electromagnetic analysis of the multilayer circuit board by the divided area, based on the analysis conditions; and a step ~~S8~~ for integrating results of the electromagnetic analysis over each of the divided areas, thereby obtaining results of the electromagnetic analysis over the whole circuit board.

~~By using this approach, an EM analysis of a multilayer circuit board can run quickly to significantly reduce time and cost required for designing the circuit board.~~